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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,179	10/20/2003	Lawrence O. Sims	19692.1	2709

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EXAMINER

WERNER, JONATHAN S

ART UNIT	PAPER NUMBER
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3732

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/689,179	Applicant(s) SIMS ET AL.	
	Examiner Jonathan Werner	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to Applicant's amendment received on 3/9/06.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 5 recites "alternatively adding and removing hybrid ceramic material." Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term "alternatively" is used by the claim to mean "alternately", while the accepted meaning is "occurring or succeeding by turns." The term is indefinite because the specification does not clearly redefine the term.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4, 6, 8 and 10-11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hagenbuch et al. (US 2002/0025506) in view of Kim (US 6,267,597). As to claim 1, Hagenbuch describes the preparation of an abutment system comprising the steps of forming a curable hybrid ceramic material into a shoulder (bottom ends base portions comprising elements 4 & 5; Figure 1) about the base portion of the abutment (top half of 3); shaping the initially cured shoulder to a desired shape (par 35); and completely curing the shoulder (par 35). Hagenbuch fails to disclose the step of partially curing the hybrid ceramic material so as to form an initially cured shoulder prior to the step of shaping said shoulder to a desired shape. Kim, however teaches a similar tooth restoration method in which a curable hybrid ceramic material is partially cured so it can be properly molded, and then finally cured (Abstract). Therefore, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to partially cure the hybrid ceramic material in order to easily shape the shoulder to a desired shape as taught by Kim. As to claim 4, before completely curing the hybrid ceramic material, Hagenbuch discloses removing an amount of said material (par 35). In re claim 6, the hybrid ceramic material disclosed comprises at least 85% porcelain (i.e. "Barium glass filler (silanized)" in paragraph 37). In re claim 8, Hagenbuch discloses that the hybrid ceramic material further comprises a pigment (par 24). In re claims 10 and 11, the curing step comprises subjecting the shoulder to heat and more specifically, Hagenbuch discloses a particularly preferred glass-transition temperature of "more than 100° C" for the hybrid ceramic material (par 27).

4. Claims 2-3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagenbuch in view Kim further in view of Braiman (US 5,346,397). In re claim 2, Hagenbuch

and Kim discloses a method for preparing an abutment system as previously described, but fail to disclose the step of applying an opaque material to the abutment. Braiman, however, teaches the use of an opaque paste (14) on an abutment prior to forming the curable hybrid ceramic material into a shoulder about the base portion of the abutment. Therefore, it would be obvious to one having ordinary skill in the art at the time of the applicant's invention to apply an opaque material to the abutment in order to firmly bond said abutment with the curable hybrid ceramic material and still look like a normal colored tooth as taught by Braiman. As to claim 3, Hagenbuch discloses a method for preparing an abutment system as previously described, but fails to disclose adding additional hybrid ceramic material to the initially cured shoulder. Braiman, however, teaches adding additional ceramic material to the shoulder (claim 5). Therefore, it would be obvious to one having ordinary skill in the art at the time of the applicant's invention to add additional ceramic material to the initially cured shoulder in order to assure the outer porcelain layer will not become overly compressed as taught by Braiman. In re claim 12, Hagenbuch discloses a method for preparing an abutment system as previously described, but fails to disclose the step of polishing the shoulder. Braiman, however, teaches the step of polishing (col 2, ln 35-38). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to polish the fully cured shoulder in order to have a smooth surface that will not irritate a user's mouth as taught by Braiman.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hagenbuch in view Kim further in view of Lustig (US 4,689,013). Hagenbuch and Kim disclose a method for preparing an abutment system as previously described, but fail to disclose the step of alternately

adding and removing the hybrid ceramic material from the shoulder prior to fully curing it.

Lustig teaches a method for restorative dentistry in which a dental restorative such as ceramic is alternately added and removed from an abutment coping prior to fully curing it (column 5, lines 5-30). Therefore, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to alternately add and remove the hybrid ceramic material from the initially cured shoulder in order to properly shape said shoulder as taught by Lustig.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hagenbuch in view of Kim. Hagenbuch and Kim disclose the claimed invention except for the specific percentage of porcelain present in the hybrid ceramic material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the hybrid ceramic material comprise 92% porcelain, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hagenbuch in view of Kim further in view of Ibsen (5,683,249). Hagenbuch and Kim disclose a method for preparing an abutment system as previously described, but fail to disclose the step wherein the hybrid ceramic material is partially cured by subjecting said material to ultraviolet light. Ibsen, however, teaches curing a polymerizable material by ultraviolet light (col 18, ln 16-20). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the

applicant's invention to cure the hybrid ceramic material using ultraviolet light in order to initiate polymerization of the material as taught by Ibsen.

Response to Arguments

8. Applicant's arguments regarding the rejection of claim 1 (step b) under 35 U.S.C. 102(b) and claim 5 under 35 U.S.C. 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art references, as previously described above.

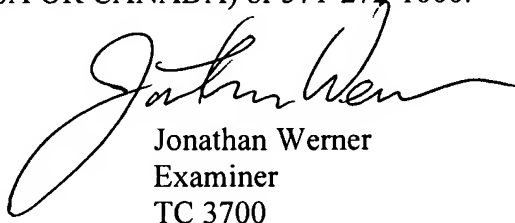
9. Applicant's arguments with regard to claims 1 (disclosure of a shoulder member), 2-3, 7, 9 and 12 have been fully considered but they are not persuasive. As to claim 1, Applicant fails to claim any structural limitations that would further define the shoulder as specified. As to claim 2, the Braiman patent is used to teach the use of an opaque paste on an abutment prior to forming the curable hybrid ceramic material into a shoulder about the base portion of the abutment. While in claim 12, the Braiman patent teaches the step of polishing. Since Braiman is used as a modifying reference in combination with Hagenbuch, Braiman is not required to show said shoulder.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Werner whose telephone number is (571) 272-2767. The examiner can normally be reached on Monday-Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco can be reached on (571) 272-4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jonathan Werner
Examiner
TC 3700

5/25/06



MELBA N. BUNGARNER
PRIMARY EXAMINER